Piacentine No. 1-27 Conversion to Observation Well

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Princeton Natural Gas, LLC
Piacentine No. 1-27

Location: 3490′ North and 990′ East from southwest corner of Section 27, T 3N, R 5E, MDB&M, San Joaquin Co., California.
Elevation: -6' ground, USGS. +7' KB.
Take all measurements from KB which is 13′ above ground.
Keep hole full at all times.
Check operation of BOE daily

Present Condition (Producing)

TD 4900' MD PD: 4715′ (bridge plug)
Casing: 8-5/8", 24#, J-55, cemented to surface @ 627'.
5-1/2″, 15.5#, K-55, cemented at 4900′. Top of cement in the annulus is at 4175′.
Tubing: 2-3/8″, 4.7#, J-55, EUE tubing hung at 4587′
Perforations: 4670′-4682′. Open
4684′-4690′, 4700′-4705′. Cement squeezed.
4720′-4724′, 4750′-4764′. Cement squeezed, Below bridge plug at 4715′.
Base of freshwater: ~150′ (per Division of Oil & Gas).

Conversion program to an observation well

1. **Do not remove production unit or any of the piping on the location. Close master valves on the tree. Close wing valve. Close flowline valve to pipe line. Bleed gas pressure in flowline. Disconnect X-mas tree from flowline.**

2. **Move in workover rig. Kill well with minimum clean 4% KCl water with no polymer. Set a plug inside the donut and pressure test X-mas tree to 3000 psig. Notify Cameron Wellhead if X-mas tree is leaking and after removing X-mas tree send it in for repair or replacement. Install BOE and test. Notify DOG to witness. Pressure test BOE.**

3. **Pull out with tubing. Run mill and scraper to 4715′. Pull out.**

4. **Run TMD (pulse Neutron)/GR/Collar located log from 4500′ to 4715′.**

5. **Run Model R packer on bottom of tubing with Model R nipple (1.75″ ID) above Packer and a re-entry sub below packer. Run a Baker Model L sleeve (ID=1.875″) one joint above the packer. Set packer at 4650′. Pressure test annulus to minimum 2500 psig for 1/2 hour. Use recorded chart for this test.**

6. **Install X-mas tree.**

7. **McAnally set a plug inside Model R nipple (the plug should have an equalizing pressure port). McAnally Open sleeve.**

8. **Move in nitrogen and pump truck. Connect Pump truck to annulus. Connect the tubing to a frac Tank using steel line. Make sure the steel line is staked properly. Chain the flowline connection to frac tank.**

9. **Pump Nitrogen down the annulus and unload well through tubing to frac tank. Unload all the fluid. Clean well. Pressure up both tubing and annulus to 1900 psig using nitrogen.**

10. **McAnally wireline remove plug from inside Model R nipple. McAnally close Model L sleeve. Bleed nitrogen from the annulus. Fill annulus with 4% KCl water treated with Corrosion inhibiter and biocide. Pressure test annulus to a minimum of 2500 psig and hold for ½ hour.**

11. **Bleed Nitrogen from tubing very slowly to atmosphere (do not want to bring water and sand into wellbore). Reconnect well to the production line and produce at 40 to 50 Mcf/D.**

12. **Notify EPA thirty day in advance and then 48 hours in advance to witness MIT test. Perform MIT test by connecting a pump to the annulus (at this time the annulus is full of fluid). Pressure up annulus with fluid to a minimum of 2500 psig and hold for ½ hour. Use recorded chart for this operation.**

13. **Turn well over to PG&E to be used as an observation well.**